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1 MR. MULLADY: This ELMO versus big screen is the  
2 aptitude test in this courtroom for the lawyers, and we all  
3 fail it.

4 Q We have your report on the screen.

5 UNIDENTIFIED ATTORNEY: Speak for yourself.

6 A Which of my reports?

7 Q This is the July 31 report, I believe --

8 A Okay.

9 Q -- is that correct? And I want to look at Page 11, where  
10 I took the language from the question I just asked you. Only  
11 363 of the 1,596 mesothelioma claimants identified a nature of  
12 exposure code for their direct exposure in Part 3 of the PIQ.  
13 That wasn't what I was looking for. I'm looking for --

14 (Pause)

15 MR. BERNICK: You may try the paragraph right above  
16 that one? I thought that had a -- "I did not further review  
17 the materials submitted. I accepted the state of exposure  
18 categories."

19 MR. MULLADY: Well, that wasn't exactly the language  
20 that I -- but let's move on past this point.

21 Q Is it correct that if there was a code identified you did  
22 not further review the materials submitted by these claimants,  
23 and you accepted the nature of exposure category they  
24 identified in support of their claims. Is that correct?

25 A That's right.

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1 Q All right. Now, in assigning the remaining 1,233  
2 claimants to the nature of exposure categories on the basis of  
3 the material in the PIQ's and attachments, you instructed your  
4 team to use their best judgment and take a series of steps  
5 which are set out on the slide I'll bring up now, which is  
6 ACC/FCR-432. It's part of your July report, third paragraph.  
7 Okay. If the exposure -- these are the three steps you told  
8 your reviewers to use, correct? And one of which was to  
9 examine the PIQ --

10 MR. MULLADY: We need to see all three steps. Let's  
11 go to Paragraph 4. I think that's what I'm looking for.

12 Q "Examine the PIQ and all attachments for any information  
13 regarding the nature of exposure to Grace products in order to  
14 assign the claimant to an appropriate category. If the  
15 description provided included the relevant keywords, such as  
16 mix, remove, cut or install, or otherwise provided information  
17 that could be reasonably -- could be reasonably interpreted to  
18 mean that the claimant engaged in these activities, the  
19 appropriate nature of exposure was checked." Did I read that  
20 correctly?

21 A Yes.

22 Q So, the PIQ's asked the claimants to provide information  
23 -- strike that. The PIQ's did ask claimants to provide  
24 information on non-Grace exposure, as well as Grace exposure,  
25 correct?

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1 A I think yes.

2 Q And I think you told us on direct that your task was to  
3 look for the Grace exposure and consider that, and that you  
4 didn't consider the non-Grace exposure, but let's take a look  
5 at one of the PIQ's just to get a reference point for where  
6 this question was asked about non-Grace exposure.

7 MR. MULLADY: Can we have ACC/FCR-3017?

8 MR. BERNICK: I don't understand the preparatory  
9 statement made by counsel, but if it -- if it's not material to  
10 the question, I guess I don't have an objection.

11 THE COURT: I'm sorry. What exhibit is this, please?

12 MR. BERNICK: There was a preparatory statement made  
13 by counsel as an introduction to showing this particular  
14 document, and I didn't understand the preparatory statement,  
15 but if it doesn't have anything to do with the question that's  
16 now going to be asked, I guess it's not a problem. It's a  
17 little bit confusing.

18 THE COURT: What exhibit are we looking at, please?

19 MR. MULLADY: I'll begin again.

20 Q Did you tell us on direct examination, Dr. Anderson, that  
21 you did not consider the claimant's non-Grace exposure in  
22 performing your analysis?

23 MR. BERNICK: Objection to the form of the question.

24 A Well, I mean, it was not part of the analysis, but I did  
25 present some information in my report, and I mentioned today

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1 those claimants that had filed other claims claiming other  
2 exposures.

3 Q But the instructions you gave to your reviewers were to  
4 look for evidence of exposure to Grace asbestos-containing  
5 products and only Grace asbestos products, correct?

6 A Well, the whole -- as I defined the initial question  
7 today, the question was did these claimants have the  
8 mesothelioma disease from exposure to a Grace product group,  
9 and that is the question I sought to answer.

10 Q All right. And where I was a minute ago was asking --  
11 about to ask you about the questionnaire's inquiry about non-  
12 Grace exposure. Even though the PIQ's asked the claimants to  
13 provide information on non-Grace exposure, that was not  
14 considered by you in assigning a claimant to a nature of  
15 exposure category, correct?

16 A That's correct, because the nature of exposure categories  
17 were specifically to Grace products.

18 Q So, in the case of the claimant who submitted the PIQ  
19 that's on the screen, which is ACC/FCR-3017, Section 3, or Part  
20 3, would have been the place where he would have identified  
21 himself, or not, into one of the PIQ categories, correct? I  
22 have the wrong section.

23 MR. BERNICK: Well, I also -- I mean, I -- we have  
24 not received any notice of this before. It is a very  
25 substantial document. I'll note that there were objections to

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1 our proffering any of these PIQ responses into Evidence, and we  
2 now have one that's being shown to the witness --

3 MR. MULLADY: I haven't offered it.

4 MR. BERNICK: I don't -- I'm sorry?

5 MR. MULLADY: I haven't offered it, and I don't  
6 intend to.

7 MR. BERNICK: Well, I don't understand on what basis  
8 it's coming before the witness. It's not an impeachment  
9 document.

10 THE COURT: How can she use it if you're not offering  
11 it?

12 MR. MULLADY: It's -- it's marked for Identification  
13 purposes, and we're using it to establish a reference point for  
14 her analysis. It's --

15 THE COURT: Okay. I don't know where we're going.  
16 Let's just get the evidence in and find out what we're doing  
17 with this.

18 MR. MULLADY: Okay.

19 Q So, this particular claimant identified --

20 THE COURT: What section are we looking at?

21 MR. BERNICK: Could we make sure --

22 MR. MULLADY: We're on Part 3 of the PIQ.

23 THE COURT: All right.

24 MR. MULLADY: This is the PIQ of John Wiesniewski,  
25 (phonetic), Sr.

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1 Q And Mr. Wiesniewski, as his direct exposure to Grace  
2 asbestos-containing products, lists his nature of exposure as D  
3 and E. Do you see that?

4 A I see that that's what this seems to say.

5 MR. BERNICK: What page are we on? I'm sorry. Okay.  
6 I'll find it. I'll find it.

7 Q Now let's go to Part 5 on Page 11. This is the section  
8 asking the PIQ claimant about his exposure to non-Grace  
9 asbestos-containing products. And you see here where Mr.  
10 Wiesniewski identified his exposure at site of exposure one the  
11 nature of exposure he listed was A. Do you see that?

12 A I see that.

13 Q He was a mixer of asbestos-containing products?

14 MR. BERNICK: Non-Grace --

15 Q Non-Grace. Correct?

16 A I can't know, because this is an entire file. This would  
17 appear, just from this much information out of a whole file, to  
18 say that he was an A when he was working with Johns Manville  
19 products, I suppose, but that's pure speculation because I  
20 can't sit here and review this whole file.

21 Q Of course. And I'm not going to quiz you about this file.  
22 The purpose of -- my question is to understand your process.  
23 Your process would have been that your reviewers would not have  
24 considered this A designation by Mr. Wiesniewski for his non-  
25 Grace exposure in determining what category to place Mr.

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1 Wiesniewski for purposes of this case, correct?

2 MR. BERNICK: For --

3 A Well, I can't say that without seeing the whole file,  
4 certainly not with this line that says he was a sprayer with  
5 the Johns Manville product. I don't know what else is in this  
6 file.

7 Q Okay. We can take this down. And would you agree with  
8 me, Dr. Lees -- excuse me -- Dr. Anderson, that the data that  
9 you got from Dr. Lees also only deals with exposure to Grace  
10 products?

11 A That was the intention.

12 Q All right. Now, I want to ask you now about your use of  
13 Dr. Moolgavkar's doubling dose benchmarks. You understood  
14 those benchmarks to represent levels of exposure that, by  
15 themselves, would be sufficient to cause disease, correct?

16 A No.

17 Q Okay. Let's take a look at your report -- let me ask a  
18 predicate question. Would you agree with me that some of Dr.  
19 Moolgavkar's benchmarks, such as the 3.2 fiber years for mixed  
20 asbestos fibers, that that benchmark represents a level of  
21 exposure where the relative risk would be two? In other words,  
22 referencing a doubling dose of the amount of asbestos necessary  
23 to cause mesothelioma.

24 A I believe, first of all, that's misidentified. I don't  
25 believe that benchmark is Dr. Moolgavkar's, but I would like to

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1 get back to my benchmark. I think that's the mixed fiber  
2 benchmark --

3 Q Yes.

4 A -- that came from the EPA analysis, and not from Dr.  
5 Moolgavkar. And I believe I previously stated that that one is  
6 not an appropriate benchmark, really, because it contains  
7 chrysotile fibers that are known to be greatly more potent  
8 than the tremolite and chrysotile fibers that we are dealing  
9 with here.

10 Q All right. I heard you say that on direct. I'm simply  
11 asking you if that benchmark represents mesothelioma with a  
12 relative risk of two.

13 A I think that was calculated by EPA from their data with  
14 the mixed fibers, but I don't have the benchmarks here. Just a  
15 minute. Let me find them.

16 (Pause)

17 MR. BERNICK: That would be -- you need an exhibit  
18 number, Dr. Anderson? Or --

19 THE WITNESS: Yes. It was on the exhibits, so I can  
20 find it, perhaps.

21 Q I don't know if this is the one you're looking for, Dr.  
22 Anderson, but I've put GG-2285 on the ELMO. This is the  
23 comparison of screening to benchmarks.

24 A Yes. And that is the one --

25 Q All right. And you see --

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1 A -- that I mentioned earlier.

2 Q Yes. And you see where, on this slide that you prepared

3 --

4 A Um-hmm.

5 Q -- for us, you have the 3.2, and then you say meso, RR,  
6 that means relative risk, correct?

7 A Relative risk of two. I just wanted to be absolutely  
8 certain. That's taken from the EPA analysis --

9 Q Right.

10 A -- for the mixed fibers that contain chrysotile.

11 Q Let's go to Dr. Anderson's report at Page 8, please, the  
12 July report.

13 MR. BERNICK: Is that 432?

14 MR. MULLADY: 432.

15 Q You addressed benchmarks on this page of your July report,  
16 and I'd like to refer you to the section of benchmarks under  
17 the heading relative risk, RR of two. And for the record, what  
18 we have here are four benchmarks, correct?

19 A Yes.

20 Q Four different diseases in different fiber types, correct?

21 A Yes.

22 Q And let's go up to the paragraph that leads in this  
23 section. A number of these levels were taken from Dr.  
24 Moolgavkar's review of relevant epidemiological literature, and  
25 his analysis of dose response relationships.

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1 A Correct.

2 Q Do you know how many of the RR of two benchmarks that we  
3 just referenced were taken from Dr. Moolgavkar's review of the  
4 relevant epi literature, and his analysis of dose response  
5 relationships?

6 A Yes. I think so. He did the Libby fibers work -- the 8.9  
7 came from his work. I am not certain that he did the original  
8 work, or if he was reviewing and agreeing with the work of  
9 others for the benchmark 79.0 and 100 to 278. I think those  
10 have been previously mentioned by others, and I think he  
11 derived his own, as well.

12 Q Now, a doubling of the risk, am I correct that that  
13 implies that the probability of the disease being caused by the  
14 exposure is greater than 50 percent, that is, it is more likely  
15 than not that the disease was caused by the exposure?

16 MR. BERNICK: Objection to form. What disease?

17 A That is a theoretical statement when you're in this -- and  
18 I'll tell you why. When you're in the inference zone that I  
19 spoke about earlier, the only way to calculate that relative  
20 risk of two is to assume some shape to the dose response curve.  
21 And I mentioned earlier that in 1976 when we adopted that  
22 linear non-threshold curve, and this whole concept of  
23 extrapolating outside of a range where we had actual  
24 information, it was novel at the time. We said it was a  
25 default approach to establish an upper bound on the risk, so to

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1 use these modeling exercises to establish a relative risk of  
2 two in those zones does have inherent uncertainties that are  
3 modeled that are not based on scientific information but must  
4 rely on modeling information, an assumed shape to the model.

5 MR. MULLADY: Sorry. I did it again. Can we have  
6 ACC/FCR-431, please?

7 UNIDENTIFIED ATTORNEY: Which one is that?

8 MR. MULLADY: This is the June report of Dr.  
9 Anderson, at Page 4.

10 Q This is the supplemental report that you did in this case.  
11 You had three reports for the estimation proceedings, as I  
12 understand it. And --

13 A I'm sorry. Which report is this?

14 Q This is the June report, Dr. Anderson. And in this report  
15 you gave us some background on relative risk, which we see  
16 here. You give us a definition, and then you tell us what a  
17 doubling of the risk implies. I believe it's beginning with  
18 the sentence "As Dr. Suresh Moolgavkar indicated in his expert  
19 report, the standard linear relative excess risk model used by  
20 EPA for lung cancer --". No, that's not what I was looking for.

21 (Pause)

22 Q Ah. I'm sorry. The paragraph before this. "A relative  
23 risk greater than two is equivalent to the excess risk from the  
24 exposure being greater than the risk without the exposure."

25 First of all, is that a true statement?

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1 A That is generally true in the abstract, and if you go down  
2 to just where you were, you will see what I'm talking about,  
3 where it says using models employed by EPA at the very bottom  
4 of that page, the first thing outside that observed range that  
5 I say there, and quoting what he did, is that he assumed a no  
6 threshold dose response model, and that's what I was trying to  
7 address. Yes, conceptually that's what a relative risk of two  
8 is. How one gets there when they must rely on an assumed shape  
9 to a model that we know is not confirmed, is not scientifically  
10 confirmed, adds that degree of uncertainty to that relative  
11 risk of two.

12 Q Sure.

13 A One is a definition of the relative risk of two, and I  
14 just spoke to, in some cases, what one must do to make that  
15 calculation.

16 Q Right. And right after the sentence I just read, you  
17 wrote in your report, and I quote, "It implies that the  
18 probability of the disease being caused by the exposure is  
19 greater than 50 percent, i.e., it is more likely than not that  
20 the disease was caused by the exposure." Did I read that  
21 correctly?

22 A Conceptually that's correct.

23 Q Now, I want to turn back to your July report, 432, at Page  
24 9, where you talk about the B, D, and E claimants' exposure.  
25 And you say that, "Furthermore, these exposures have not been

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1 demonstrated scientifically to contribute to the risk of  
2 disease even when added to other significant exposures." That  
3 was your opinion, correct?

4 A That's right.

5 Q Now, let's go to table -- the figures in table section of  
6 this report to Figure 2. And in this Figure 2 you show the  
7 estimated cumulative exposures for B, D, and E claimants --  
8 excuse me -- you show the estimated cumulative exposure for  
9 mesothelioma claimants who provided sufficient information on  
10 exposure in the B, D, and E categories to Grace products.

11 Correct?

12 A That's right.

13 Q Now, in Figure 2 you have not added any other, quote,  
14 significant exposures, or, quote, other significant exposures,  
15 to these claimants' Grace exposures. Isn't that right?

16 A That's correct.

17 Q Okay. In fact, nowhere in your analysis have you taken  
18 the B, D, and E claimants' cumulative exposures to Grace  
19 products and added in exposures to any non-Grace products. Is  
20 that correct?

21 A That's correct, because I was addressing the specific  
22 question that I stated earlier, what are the exposure to the  
23 Grace product groups, and could they have been associated with  
24 disease causation? And what I said earlier is, when we found  
25 that these levels are so low, so very, very low under such

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1 extreme assumptions, it would be highly unlikely that these  
2 very small incremental amounts would be meaningful in the  
3 context of any kind of causal relationship.

4 MR. MULLADY: All right. Thank you, Dr. Anderson,  
5 but Your Honor, I would move to strike everything after the  
6 witness answered my question yes.

7 THE COURT: No. She's entitled to explain her  
8 answer. That's denied.

9 Q All right. Now, Dr. Anderson, I want to talk to you about  
10 the concept of substantial contributing factor. Substantial  
11 contributing factor to you means that there is enough exposure  
12 to have made a convincing case that the exposure was just that,  
13 that it could cause the disease, or substantially contribute to  
14 the causation of disease. Is that correct?

15 MR. BERNICK: Objection to the form of the question.  
16 You've got at least two different questions in there.

17 THE WITNESS: What I have said --

18 THE COURT: I'm sorry. I believe the objection is  
19 sustained. I think you do have a compound question. Rephrase,  
20 please.

21 Q Does substantial contributing factor to you, Doctor, mean  
22 that there's enough exposure to have made a convincing case  
23 that the exposure could cause disease or substantially  
24 contribute to the causation of disease?

25 A May I give you a three-fold answer? The first is, I think

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1 the substantial contributing factor is something I've heard in  
2 the legal context, not in the scientific context, so I -- I  
3 don't speak to that issue legally. I'm not an attorney.  
4 Secondly, in the scientific context what I have said is I know  
5 when we can observe information. I mentioned that the National  
6 Academy of Sciences committees convened under the Institute of  
7 Medicine routinely do this. They consider that observed range,  
8 and they quote this. They get their protocol before they start  
9 these studies, and I mentioned one study. When you're in that  
10 observed range, we have observed from, if the studies are  
11 consistent, good epidemiology studies, well conducted, well  
12 designed, and if we observe the relationship we have a  
13 scientific basis for then saying that there is an association  
14 between the exposure and the effect. As we depart from that  
15 observed range into the range of inference, particularly down  
16 in very, very low ends of that range, that can't be said. So,  
17 I don't know if that can answer your question, but that's kind  
18 of my three-part answer.

19 Q Well, assuming, hypothetically, that Dr. Moolgavkar's  
20 doubling dose benchmarks represent a level of exposure that  
21 would be sufficient by itself to cause disease, then logically,  
22 some level of exposure less than the benchmark level could  
23 contribute to the disease, could it not?

24 MR. BERNICK: Objection to the form of the question.

25 THE COURT: What's the objection?

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1 MR. BERNICK: Objection to the form of the question.  
2 I mean, the first part of it was that assuming the doubling of  
3 dose means that it can cause, then I think logically something  
4 less than that could contribute. I don't know what the -- what  
5 the question asks for. What kind of logic are we talking  
6 about? Are we talking about science? Are we talking about  
7 logic? Are we talking about data? And what does he now mean  
8 by contribute? He's started out with a legal term, substantial  
9 contribution. The witness says she doesn't deal in substantial  
10 contribution. What does he mean by contribute?

11 THE COURT: Wait. That was a different question.  
12 This is a doubling dose question. But --

13 MR. BERNICK: But he then said -- presumably that  
14 means, or logically that means that something less than the  
15 doubling dose could contribute --

16 THE COURT: Contribute. Yes.

17 MR. BERNICK: And that's the problem, is could  
18 contribute. And why is it logical? Or is he asking a pure  
19 logic question, or is it based upon the witness's scientific --  
20 I mean, what is it?

21 THE COURT: All right.

22 MR. MULLADY: I'll rephrase the question and try to  
23 put it in scientific terms as a non-scientist.

24 Q If the doubling dose benchmarks represent a level of  
25 exposure that would be sufficient to be the sole cause of

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1 disease, then isn't it scientifically plausible that some less  
2 -- some exposure less than the benchmark could contribute  
3 substantially to the cause of that disease?

4 A I think I can agree with the first part of what you've  
5 said, because I've just said the doubling dose information,  
6 conceptually the first statement that you read to me is  
7 correct. In fact, when we are forced to make, or when Dr.  
8 Moolgavkar is forced to make doubling dose calculations and  
9 inference part of the knowledge base that we have, and he must  
10 employ this linear non-threshold model, the first part of your  
11 statement is uncertain. I mean, we can't assume that that's  
12 the exact level at which we would assume a disease to occur.  
13 And if you're asking me if a very small amount as I've defined  
14 and found in this analysis for the B, C and D -- I mean, sorry,  
15 the B, D and E categories would be substantially contributing,  
16 I think from this analysis we see as we even get the additional  
17 duration data that we have such very, very low exposures that I  
18 think it's highly improbable that they can make any  
19 contribution. And that's been my testimony before.

20 Q I want you to assume, nonetheless, hypothetically --  
21 hypothetically, that a Court could find that a two percent  
22 contribution to a claimant's risk of disease is sufficient for  
23 legal liability. All right? That's the hypothetical  
24 assumption I'm asking you to make for purposes of my questions  
25 only. With that assumption, I want to look at Dr. Moolgavkar's

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1 benchmark of three -- or, the benchmark of 3.2 fiber years for  
2 the doubling dose for mesothelioma for chrysotile and amphibole  
3 fibers.

4 MR. MULLADY: Can we have ACC/FCR-432, the July  
5 report, at Page 8, please?

6 Q Two percent of the 3.2 fiber years benchmark would be .064  
7 fiber years. I've done the math. Does that sound about right?

8 A I'm sorry?

9 Q Two percent of 3.2 fiber years I've calculated as .064  
10 fiber years. I would represent to you that's the way the math  
11 comes out. Does that sound right to you?

12 MR. BERNICK: Is it zero point six four?

13 MR. MULLADY: Yes.

14 THE WITNESS: I don't have a calculator --

15 MR. BERNICK: That can't be right.

16 MR. MULLADY: .064. I can't read my own notes.

17 .064.

18 A I don't know what you're asking me. First of all, I've  
19 said that that benchmark is -- they are just for completeness  
20 sake. It doesn't apply in this case because of the  
21 chrysotile term, and I have said in my deposition, and I feel  
22 very strongly as a scientist that in the abstract I can't make  
23 statements about some --

24 Q I haven't asked you your question yet, ma'am.

25 A Well, you asked -- I thought you asked me if that

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1 percentage --

2 Q I've just asked you if the math -- if you will accept my  
3 math, that two percent of 3.2 is .064. And then I'm going to  
4 ask you a question.

5 A I hate to tell you this, but I virtually never accept  
6 somebody telling me something. I don't have a calculator here.  
7 If someone -- have we verified that?

8 MR. BERNICK: For purposes of this question, Dr.  
9 Anderson, we'll stipulate that Mr. Mullady did the calculation  
10 right so we can proceed.

11 MR. MULLADY: Even though I couldn't say it --

12 MR. BERNICK: Even if you couldn't say it, .064  
13 sounds like it is two percent of 3.2.

14 THE WITNESS: Okay.

15 MR. MULLADY: I think it is. All right.

16 Q So, let's look at your Figure 2, and I will have a  
17 question for you in a minute, I promise. Let's go to Figure 2  
18 from your July report. Each one of these bars represents your  
19 estimate of the number of B, D, and E claimants that fall  
20 within each of the cumulative exposure ranges, correct?

21 MR. BERNICK: As of the time of the report or today?

22 MR. MULLADY: As of the time of the report.

23 Q Is that correct?

24 A That's right.

25 Q All right. And there are 330 B, D, and E claimants total

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1 represented in this figure, right?

2 A I think that's right.

3 Q Okay. Now, based on your calculations, all claimants to  
4 the right of this first bar here, so beginning with the number  
5 57, and adding all of these individuals across the graph, have  
6 exposures of greater than .1 fiber years, correct?

7 A I'm sorry. Where are you?

8 Q All of the people to the right of this first bar here,  
9 beginning with this group in the --

10 A All right.

11 Q -- in the .1 to .2 range, and all the way down, have  
12 exposures greater than .1, is that right?

13 A That's right.

14 Q Okay. So, if a Court were to accept .064 fiber years as  
15 sufficient to be a substantially contributing factor, that  
16 would pull in all of the B, D, and E claimants on your chart to  
17 the right of the first bar? 72 percent of these claimants, by  
18 my math. Would that be correct?

19 A I don't see how you're getting there at all.

20 Q Well, I'm just asking you for purposes of my hypothetical  
21 question. If a Court were to determine that .064 fiber years,  
22 which is two percent of the benchmark of 3.2, is sufficient to  
23 be considered a substantial contributing factor for  
24 mesothelioma causation, that that would bring into the mix, as  
25 opposed to excluding them, 72 percent of the B, D, and E

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1 claimants on whose -- who you've identified in this chart?

2 MR. BERNICK: Your Honor, we'd let the witness  
3 answer, but --

4 A That's --

5 MR. BERNICK: Go ahead, answer.

6 A That's so incredibly unlikely --

7 Q I'm not asking you to agree with the hypothetical. I'm  
8 just asking you if that would be the result if the hypothetical  
9 assumptions were correct.

10 A I -- I think that giving me an implausible hypothetical  
11 and asking me to agree with it is not something I'm comfortable  
12 doing.

13 Q Maybe --

14 A To me it makes no scientific sense to form that  
15 hypothetical because you're talking about, one, a benchmark  
16 that doesn't apply to the data; and two, a two percent part of  
17 that benchmark. And, first of all I've said that even a  
18 doubling dose is not something that I consider in the abstract  
19 a causal benchmark. I've presented them all because when  
20 they're outside the observed range the modeling that's  
21 necessary renders a great degree of uncertainty. I think all  
22 of this in the aggregate, as we depart from the observed range  
23 and goes down does provide information. I think to say  
24 hypothetically that a two percent of a doubling dose number in  
25 the inference zone would be a substantial contributing factor

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PP  
Cr

1 is highly unlikely.

2 Q Well, but --

3 MR. BERNICK: I don't think the witness has answered  
4 the question. I really think that if you go back and take a  
5 look at the chart you made a -- just made a mistake in looking  
6 at that number. It's .06.

7 THE COURT: It's .064, not .64.

8 UNIDENTIFIED ATTORNEY: That would pick up a hundred  
9 percent.

10 THE COURT: Yes. He corrected that. But then I  
11 don't think he corrected it on -- in his question.

12 MR. BERNICK: The chart -- the chart says greater  
13 than zero and less than .1. So, all of it --

14 MR. MULLADY: Yes.

15 MR. BERNICK: -- would be within that first bar --

16 MR. MULLADY: That's correct, Mr. Bernick. Correct.  
17 They would all -- it would be a hundred percent.

18 Q Doctor, on the two percent I think you've told us that you  
19 don't -- you're not here to tell the Court what the legal  
20 standard is for substantial contributing factor, correct?

21 A I said that I know what I would regard as a scientist to  
22 have contributed or not.

23 Q I didn't ask you that. I asked you whether you're here to  
24 express a view on the legal standard for substantial  
25 contributing factor causation, and you're not, correct?

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PP  
C&R

1 A I can express scientific opinions and not express any  
2 legal standards.

3 Q All right. And so, you can't express an opinion that a  
4 two percent standard is or is not reasonable. That's not just  
5 something you're here and capable of discussing if that is --

6 A I said --

7 Q -- a legal standard?

8 A I said scientifically I find it implausible.

9 Q Fair enough. All right. Now, I'd like to look at just  
10 three slides that review the criteria on which you conclude  
11 that certain claimants don't have merit against Grace. And the  
12 purpose of these next slides is to -- for me and the Court to  
13 get a clear understanding of how you determined that these B,  
14 D, and E claimants' claims were not meritorious. So, let's  
15 have FCD-104, please. All right. At the top we say "non-  
16 meritorious claim?" Meaning, the construct here is this is a  
17 claim that you and your staff at Exponent are being asked to  
18 consider and rule either in or out on the basis of the evidence  
19 before you. In the case of this first person we have a  
20 claimant, and we'll -- first of all we're going to assume that  
21 Dr. Moolgavkar's doubling dose benchmark for mesothelioma of  
22 3.2 fiber years is correct. And I understand --

23 A Everything about that is wrong.

24 Q I understand you disagree with that, but again --

25 A It's not his benchmark, and it's a doubling dose for

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PP  
Cfr

1 fibers that don't apply in this case.

2 Q All right.

3 (Pause)

4 Q Yes. Just to clarify this issue of the 3.2 fiber years  
5 benchmark, let's bring up your June report, at Page 5. And  
6 I'll just make sure we have a clear record on this. You say at  
7 the top of the page, "I used these values, as well as 3.2 fiber  
8 years, a value calculated by Dr. Moolgavkar using a potency  
9 determined by EPA to reflect both chrysotile and amphibole  
10 fibers at benchmarks at which the risk of mesothelioma  
11 doubles." Did I read that correctly?

12 A Sir, where are you?

13 Q It's highlighted on the screen for your ease of reference.

14 MR. BERNICK: What exhibit is that? Which exhibit is  
15 that?

16 MR. MULLADY: 431.

17 MR. BERNICK: 431?

18 Q Do you see the highlighted language there, Dr. Anderson?

19 A Yes.

20 Q Okay.

21 MR. BERNICK: What page is it?

22 Q The value was calculated by Dr. Moolgavkar, but what  
23 you're saying is that he used a potency determined by EPA?

24 A That's right.

25 Q Okay.

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PP  
Gr

1 A And that's that linear non-threshold for the mixed fibers.

2 Q But Dr. Moolgavkar calculated it? So, just so that's  
3 clear --

4 A I don't recall whether EPA calculated it in their  
5 lifetime, or whether Dr. Moolgavkar re-calculated it here. I  
6 say he calculated it, and I don't remember exactly, but it's  
7 the EPA dose response curve.

8 Q All right. Let's go back to the hypothetical here.

9 Assuming that the doubling dose benchmark of 3.2 is correct,  
10 it's the correct doubling dose benchmark to use, and you had a  
11 claimant who had a working career of 45 years, all with Grace  
12 products at an annual level sufficient to reach the 3.2  
13 benchmark, as I understand how you did your analysis, you would  
14 not have regarded this claim as non-meritorious and not  
15 warranting any further consideration. This would be a claim  
16 that would warrant further consideration. Is that correct?

17 A That's not correct.

18 Q Why is that incorrect?

19 A What I said is I regarded all the benchmarks, particularly  
20 giving weight to the ones in the observed range, and the others  
21 to give a full spectrum of what had been available from the  
22 dose response modeling including this with all mixed fibers.  
23 And I said, as we depart from that observed range, the  
24 benchmarks become less convincing that there is any risk  
25 associated with the low level exposures. And then I said that